CEE FY20 Program Information Sheet

Program Name

Communication, Education, & Engagement (CEE) Division:
"Evolving the Climate Resilience Ecosystem of Adaptation Service Providers"

Program Mission

A key part of the mission of the Communication, Education & Engagement (CEE) Division of NOAA's Climate Program Office (CPO) is to help U.S. communities and businesses better understand and manage their climate-related risks and opportunities, which includes building resilience to climate-related hazards. To help achieve this mission, CEE manages and maintains the U.S. Climate Resilience Toolkit (or CRT, online at https://toolkit.climate.gov), which gives easy public access to federal science-based information, tools, data products, and expertise—all designed to help U.S. decision makers, resource managers, municipal planners, and business and policy leaders ("stakeholders") make their valued assets more resilient to extreme events. Scalability and replicability of successful tools and methods are of particular interest to this program and, therefore, partnerships across all four domains—government, academic, commercial, and non-profit organizations—are seen as essential to our success. Successful applicants to this program must demonstrate the following attributes: alignment with the CRT's Steps to Resilience risk management and decision-making framework, including capacity to provide improvements on its articulation and implementation; proven capacity to take ideas to scale, e.g., through open-data and open-source solutions; and established partnerships aimed at leveraging data, tools, capacity, or other resources relevant to building resilience to climate-related hazards.

Focus for FY20

The CPO/CEE Division seeks a non-profit organization to conduct and manage an annual competition for organizations to collaborate within the Resilience Ecosystem and **to support projects that address *recognized goals and gaps* in the Resilience Ecosystem** (please refer to the **RE Workshop webpage** to view the summary report and to explore the goals and gaps identified). The successful applicant will receive between $150,000 and $250,000 per year, for three years, aimed at improving collaboration of work, and scalability of tools and services, among a broad array of actors in the Resilience Ecosystem to achieve five foci (summarized below in "Goals & Objectives").

Funding for FY20

Pending the availability of funds in FY20-F22, the CPO/CEE Division plans to offer one cooperative agreement award of between $150,000 and $250,000 per year, for a 3-year period, to an external entity that will manage and conduct annual grants competitions in

accordance with the goals and objectives summarized above (see “Program Mission”) and below (see “Goals & Objectives”). Each year and prior to disbursement of funds from the CPO/CEE Division, the awardee shall provide proof of matching funds.

Competition Information

The CPO/CEE Division seeks a partnering organization that holds “learning by doing and measuring outcomes” and “adaptive management” among its core values. The successful applicant of this competition will meet all of the following criteria:

1. The applicant shall be a recognized leader in developing or funding climate adaptation and resilience resources and services. The successful applicant shall have a demonstrated track record of successfully conducting grant-funding competitions focused on climate adaptation and/or climate resilience. The applicant shall likewise have demonstrated experience surveying and researching climate services and resources gaps and opportunities.

2. The successful applicant shall provide matching funds for the budget provided annually under this FFO by the CPO/CEE Division. At least the first year of match funding must be in hand at the time of the application.

3. The successful applicant shall demonstrate relevant experience monitoring and overseeing grant-funded projects and programs, including defining and evaluating successful outcomes.

4. The applicant shall demonstrate a good understanding of climate services, resources, and expertise that comprise the Resilience Ecosystem. The applicant should show evidence of success in directly or indirectly helping individuals and organizations within the United States adapt to, prepare for, and mitigate adverse impacts of climate variability and change.

5. The applicant must have no conflict of interest working and co-investing with NOAA within the Resilience Ecosystem, which comprises researchers, government officials, and professionals conducting climate adaptation and climate resilience-building in any / all of the domains of academia, government offices / labs, non-profit organizations, and commercial businesses.

Additionally, three letters of support from active climate service and resource providers or climate adaptation/resilience-building practitioners shall be provided to verify the applicant’s experience and expertise among these criteria.

Goals & Objectives of this Grant

Since 2017, the CEE Division has co-sponsored workshops, town halls, and competitive grant funding to support an emerging field of professionals focused on improving Americans’ resilience to climate-related hazards in a variable and changing climate using the Steps to Resilience risk management and decision-making framework. Those professionals come from academia, local government, for-profit businesses, not-for-profit organizations, and federal entities. Collectively known as the “Resilience Ecosystem,” this is an open community

of individuals and organizations who are interested in collaboration in order to improve the efficiency and effectiveness of climate adaptation practices so that, together, they may achieve much more than would be possible if each worked independently.

Individuals within the Resilience Ecosystem work to sustain and evolve science-based tools, information, and expertise that can help city planners, resource and facility managers, businesses, and others build resilience to climate-related hazards and extreme events. The following shared goals were identified through workshops and iterative engagement with representatives of the audience described above:

1. Identify ways to help U.S. communities and businesses adapt and build resilience to climate-related hazards using **scientific tools, information, expertise**, **and traditional knowledge**.
2. Promote opportunities for and **incentivize collaboration** to achieve efficiencies, effectiveness, and scalability that otherwise might not be achieved.
3. Establish, grow, and evolve the **commercial marketplace of climate decision-support products** and services.
4. Move from tools that "push" data to **tools that allow users to "pull" information** applicable to problems and hazards. Determine who the "end user" really is for existing tools.
5. A limited number of municipalities have the internal resources and capacity to use adaptation tools themselves; many other cities and towns hire boundary organizations as consultants for this work. The groups' consensus was that ***creating tools for boundary organizations and our professional network of adaptation consultants*** *should be a priority.*
6. **Reach climate champions** where they are. Cultivate new ones. Provide wayfinding for champions to link to opportunities.
7. **Map professional development opportunities that exist** through a user needs assessment. Support lifelong learning among professionals at all career stages so that climate information is contextualized.
8. Identify across-the-board **standards for resilience,** enabling comparisons among projects and their results, particularly through economic analysis.
9. **Undertake a national-level survey** of what's happening on the ground with inclusion of baseline assessments.
10. Foster development of a **systematic approach to assessing stakeholder needs, perspectives** and motivations and to sharing the data and lessons learned from stakeholder queries.
11. Foster development of **a right-scaled semantic web tool** that can make the online content all across the resilience ecosystem discoverable in users' specific frames of interest.
12. Supplant current emphasis on new tool development and instead support efforts to **help decision makers to take action using existing tools and resources**.

Within the Resilience Ecosystem, there is a shared understanding that coordination and collaboration must be deliberately supported and incentivized, especially to avoid the fragmentation and duplication that have typified past efforts. Members of the Resilience Ecosystem actively provide and accept feedback on RE-wide projects. There is also wide recognition of the benefits of having a shared vision by which multiple entities in the Resilience Ecosystem can co-invest and synergize their efforts to help the nation **adapt and**

build resilience to extreme events and to changing climate conditions while **creating jobs** and **boosting local economies**.

As outlined by Resilience Ecosystem Workshop discussants, future competitions hosted by the FY20 CEE grant award recipient will focus on work in at least one of **five focus areas** to help galvanize efforts across the United States:

1. Tools and frameworks for enhancing discoverability and interoperability of online resources. A number of websites, archives, applications, and sources of media exist online, hosted in both the public and private sectors. Typically, organizations develop their own schema for labeling, finding, and retrieving content. As such, there are multiple methods for tracking resources within the Resilience Ecosystem, including projects, organizations, professional development, and meetings or other opportunities for networking. Funding that targets this priority will advance capabilities to cross-link and make it easier to find and use all relevant content types within the Resilience Ecosystem. This initiative will produce open-source/open-access tools, terminology, and examples of using information from across a broad array of contributors. These outputs shall be freely and easily modified and used by others in the Resilience Ecosystem.

2. Expand, propagate, or scale resources, programs, or projects that effectively map or quantify exposure to climate-related hazards. This may include field campaigns that produce spatial information about hazards, vulnerabilities, risks, and their associated assets. This funding area also includes developing online resources to help people navigate data and products derived from these campaigns, including online mapping (such as through the Climate Explorer), story maps, or other tools that communicate and educate others and highlight the value of the campaigns. Outputs of these efforts must reside in the open-access domain.

3. Enhance professional development to support efforts to adapt to or improve resilience to climate-related hazards. Professional development efforts should find and enhance career opportunities for those who serve existing organizations and governments in roles where climate information can enhance decision-making. This funding area will preferentially support programs that improve adaptation decisions for underserved communities or protect populations, natural resources, and ecosystems with known vulnerabilities.

Suitable activities will advance use and understanding of the Steps to Resilience framework for risk reduction by those whose role it is to train a cadre of professionals who perform climate-related job roles, such as sustainability directors, water managers, architects, planners, or professional societies that serve adaptation and resilience-building activities. Alternatively, professional development may target a sequence of learning opportunities that target regions with known hazards and vulnerabilities or address specific topics, such as natural resource management, coastal communities, or health care. See the U.S. Climate Resilience Toolkit topics section for more information about appropriate topics.

4. Defining and measuring progress among climate adaptation and resilience-building projects. Employing the Steps to Resilience framework, funded programs will establish and/or measure criteria established prior to project implementation by which adaptation or climate resilience projects can be deemed to show progress in building resilience. Priority will be

given to projects that establish a clear financial or economic cost or benefit for activities undertaken as a result of an action plan derived using the Steps to Resilience framework. Successful proposals will address scalability and/or replicability of proposed success metrics/measurement methods.

5. Enhance the U.S. Climate Resilience Toolkit's Climate Explorer and/or other online mapping and graphing tools using open-source and open-access code. Modifications can include improvements to user interface and/or functionality based on feedback from decision makers who are undertaking the Steps to Resilience framework; or funded projects may seek to add data (in the form of maps and data services that drive graphing modules) based on feedback from decision makers. Examples of improved capabilities include adding decision-relevant climate variables or documenting the relevance of specific thresholds that would trigger decisions or consequences and/or the inclusion of those thresholds within the tool interface. Another improvement might be to expand the geographic scope or improve the resolution of data served within the tool interface. Deliverables under this category must reside in the open-access/open-source domain.